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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,648	12/10/2001	Noriyoshi Shida	Q67621	2208

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EXAMINER	
JOLLEY, KIRSTEN	
ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/006,648	SHIDA ET AL.	
	Examiner	Art Unit	
	Kirsten C Jolley	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *6-14 and 16-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

1. Applicant's election of Group I, claims 1-5 and 15 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 6-14 and 16-22 have been withdrawn from consideration as being directed to a non-elected invention.

Response to Arguments

2. Applicant's arguments filed March 8, 2004 have been fully considered but they are not persuasive.

Applicant argues that in each of the cited prior art references (Plows, JP '250, JP '489, Kikuchi '985, and Kikuchi '349), the film forming liquid is supplied to a central portion of the film forming jig (or supplied along a pivot if the film forming jig has a pivot as in Komaki). Applicant states that this is in marked contrast to the present invention in which the film forming jig is supplied to the proximity of the outer periphery so as to contact with a side surface of the outer periphery of the film forming jig. Applicant states that none of the references taken alone or in combination teaches or suggest supplying the liquid to contact with a side surface of the outer periphery of the film forming jig as claimed in claim 1.

The Examiner notes that any area that is not the absolute center point of the film forming jig meets the limitation of its "outer periphery." In each of the applied references, film forming liquid is applied generally to the center of the jig, however it is also necessarily supplied to the

outer periphery area as well since it would be impossible to only supply liquid to the absolute center point of the jig. In the case of the Komaki reference, film forming liquid is not supplied to the absolute center point of the jig because it is supplied to the support shaft of the jig which is "in the proximity of the an outer periphery of the film forming jig." Further, upon spinning of the substrate and jig to spread the coating liquid onto the substrate surface, centrifugal force necessarily causes the film forming liquid to spread over the remainder of the film forming jig and/or down its side, thus film forming liquid contacts the side surface of the outer periphery of the film forming jig as required by claim 1. For these reasons, the rejections are maintained over the prior art of record.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Plows et al. (US 4,075,974).

Plows et al. discloses a film forming apparatus comprising a rotating unit (spindle 7) for rotating a substrate (disk 15), and a film forming jig (distributor 31) which is placed on the disk

substrate, whereby film forming liquid is applied to an outer periphery of the film forming jig and the rotation unit is rotated to form a film (col. 3, lines 21-32 and 50-66). When the substrate and jig are rotated together with film forming liquid thereon, the film forming liquid will spread over the surface and down the side of the jig, therefore the film forming liquid contacts a side surface of the outer periphery of the jig. As to claims 2 and 4, the substantially conical jig/distributor 31 illustrated in Figure 1 has a thickness larger than that of the film formed. As to claim 5, Plows et al. teaches that the jig/distributor may also have a frusto conical face, or a substantially truncated conical shape as illustrated in Figure 2 (col. 3, lines 29-32).

5. Claims 1-2, 4-5, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-195250 A.

JP '250 discloses a film forming apparatus comprising a rotating unit for rotating a substrate 3, and a film forming jig 2 which is placed on the substrate, whereby liquid is applied to an outer periphery of the film forming jig as illustrated in Figure 3 and the rotation unit is rotated to form a film. When the substrate and jig are rotated together with film forming liquid thereon, the film forming liquid will spread over the surface and down the side of the jig, therefore the film forming liquid contacts a side surface of the outer periphery of the jig. As to claim 2, Figure 3 also illustrates that a thickness of the film forming jig 2 is larger than that of the film 1. As to claim 4, Figure 8 illustrates a film forming jig 10 having a "substantially conical" shape. As to claim 5, Figure 6 illustrates a film forming jig 10 having a substantially truncated conical shape. As to claim 15, the substrate is an optical disc substrate.

6. Claims 1-3, 5, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-289489 A.

As to claims 1, 3, and 15, in a first embodiment illustrated in Figures 4-6, JP '489 discloses a film forming apparatus comprising a rotating unit for rotating a substrate, and a cylindrical film forming jig 21 which is placed on the substrate, whereby film forming liquid is applied to an outer periphery of the film forming jig 21 and the rotation unit is rotated to form a film. JP '489 is directed to coating optical disc substrates. When the substrate and jig are rotated together with film forming liquid thereon, the film forming liquid will spread over the surface and down the side of the jig, therefore the film forming liquid contacts a side surface of the outer periphery of the jig.

As to claims 1-2, 5, and 15, in another embodiment illustrated in Figure 19, JP '489 discloses a film forming apparatus comprising a rotating unit for rotating the substrate and a truncated conical shaped jig 121 that has a thickness larger than the coating film, whereby the rotation unit is rotated to form a film. JP '489 is directed to coating optical disc substrates.

7. Claims 1-2, 4-5, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Komaki et al. (US 2001/0052320).

Komaki et al. discloses a film forming apparatus comprising a rotating unit for rotating a substrate (illustrated in Figures 1-3), and a film forming jig 31 which is placed on the substrate, whereby liquid is applied to an outer periphery of the film forming jig as illustrated in Figure 3 and the rotation unit is rotated to form a film. When the substrate and jig are rotated together with film forming liquid thereon, the film forming liquid will spread over the surface and down

the side of the jig, therefore the film forming liquid contacts a side surface of the outer periphery of the jig. As to claim 2, a thickness of the film forming jig 31 is larger than that of the film 1. As to claim 4, Figure 7C illustrates a film forming jig 31 having a "substantially conical" shape. As to claim 5, Figures 1 and 7A illustrate a film forming jig 10 having a "substantially truncated conical" shape. As to claim 15, the substrate of Komaki et al. is an optical disc substrate.

8. Claims 1-3 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi (US 5,980,985).

Kikuchi '985 discloses a film forming apparatus comprising a rotating unit 7 for rotating a substrate, and a film forming jig 8 which is placed on the substrate, whereby liquid is applied to an outer periphery of the film forming jig as illustrated in Figure 6 and the rotation unit is rotated to form a film. When the substrate and jig are rotated together with film forming liquid thereon, the film forming liquid will spread over the surface and down the side of the jig, therefore the film forming liquid contacts a side surface of the outer periphery of the jig. As to claim 2, it is noted that at the axial portion of the jig 8, the jig has a thickness larger than that of the coating film. As to claim 3, Figure 8 illustrates film forming jig 8 having a "substantially cylindrical" shape. As to claim 15, the substrate of Kikuchi '985 is an optical disc substrate.

9. Claims 1-2, 4-5, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi (US 6,077,349).

Kikuchi '349 discloses a film forming apparatus comprising a rotating unit 9 for rotating a substrate, and a film forming jig 10 which is placed on the substrate, whereby liquid is applied

to an outer periphery of the film forming jig as illustrated in Figure 6 and the rotation unit is rotated to form a film. When the substrate and jig are rotated together with film forming liquid thereon, the film forming liquid will spread over the surface and down the side of the jig, therefore the film forming liquid contacts a side surface of the outer periphery of the jig. As to claim 2, it is noted that at the axial portion of the jig 10, the jig has a thickness larger than that of the coating film. As to claims 4-5, Figure 7 illustrates film forming jig 10 having a "substantially conical" or "substantially truncated conical" shape. As to claim 15, the substrate of Kikuchi '349 is an optical disc substrate.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on 571-272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kirsten C Jolley
Patent Examiner
Art Unit 1762

kcj